



Forest  
Service

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File Code: 3410

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Route To:

Subject: Carson NF 2009 Forest insect and Disease Aerial Survey Results (caminorealrd)  
(canjilonrd) (elritord) (questard) (trespiedrasrd)

To: Forest Supervisor, Carson National Forest

During July 13 through July 17, 2009, Daniel Ryerson and Crystal Tischler, of our staff, conducted the annual insect and disease survey flights over the Carson National Forest, including private lands within the administrative boundary of the Forest. Crystal joined our staff in September 2008 and will be taking on the role of primary surveyor in New Mexico. This year was a period of transition as Crystal, who had previous aerial survey experience in Colorado, became familiar with New Mexico's forest types, topography, and our survey procedures. While we strive to make our surveys as consistent as possible, mapping styles vary slightly between observers.

A map and table summarizing the results of the surveys are enclosed. The map also includes activity observed on Jicarilla Apache lands and State and private lands which were surveyed June 29 through July 6, 2009, by Stephani Sandoval, New Mexico State University Cooperative Extension Service, with the assistance of Crystal Tischler and Daniel Ryerson of our staff. Copies of this letter, map, and table have been forwarded to the surveyed districts of your Forest. Following is a brief summary of the survey results:

### **Lands within the Carson NF Administrative Boundary**

The area affected by western spruce budworm increased to over 214,000 acres and continues to be the most widespread activity on the Carson National Forest. The Camino Real and Questa Ranger Districts accounted for over half over of the budworm defoliation. Aspen defoliation was mapped on over 21,700 acres across the Carson NF. As we described in our earlier letter on August 28, widespread aspen defoliation was observed again this year on the Canjilon Ranger District with 10,850 acres affected. This striking defoliation by western tent caterpillar has been occurring for a few years. Our re-evaluation flight on September 2 found that approximately 60% of the aspen stands defoliated had some level of refoliation.



Aspen defoliation by western tent caterpillar in the general vicinity of Canjilon Lakes.



We have continued our effort to distinguish aspen defoliation from aspen mortality and decline. This year nearly 15,000 acres were mapped with some level of aspen mortality. Crystal's previous experience surveying in Colorado heightened her awareness of aspen decline. This year she observed more areas with aspen decline than we had been previously mapping. While the numbers alone show an increase from 2007 - 2008, this should not be interpreted as a large aspen mortality event. The areas mapped during 2007 - 2008 typically had substantial levels of mortality. The additional areas mapped this year include aspen stands with varying levels of mortality, including stands with dying crowns, one of the early indications of decline in a stand (see examples below). We will continue to refine our mapping of aspen as we learn more about the health of this species in the Southwest.



Northern New Mexico example of aspen decline / mortality that has been mapped over the past two years.



Northern New Mexico example of an early stage of aspen decline mapped this year.

Overall bark beetle activity on the Carson NF continues to decrease. Corkbark fir mortality from western balsam bark beetle along with other factors accounted for the majority of the area observed with bark beetle activity.

### **Tribal Lands of the Jicarilla Apache and Taos Pueblo**

As on the Carson NF, the amount of aspen decline recorded increased due to the inclusion of stands with low amounts of tree mortality, as previously described. Aspen defoliation was detected on an additional 760 acres. Defoliation by western spruce budworm has expanded on tribal lands from 14,000 acres in 2008 to 20,000 acres this year. Douglas-fir beetle was the primary bark beetle activity on tribal lands.

The enclosed map and table provide additional detail. The GIS data files for the survey results are available at: [http://www.fs.fed.us/r3/gis/nm\\_data.shtml](http://www.fs.fed.us/r3/gis/nm_data.shtml). If you have questions regarding the survey or the data, please contact either of our observers: Daniel Ryerson, (505) 842-3285, [dryerson@fs.fed.us](mailto:dryerson@fs.fed.us) or Crystal Tischler, (505) 842-3284, [cgtischler@fs.fed.us](mailto:cgtischler@fs.fed.us).

*/s/ Debra Allen-Reid*  
DEBRA ALLEN-REID  
New Mexico Zone Leader, Forest Health

Enclosures: table and map

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